

# Iowa's Crash Analysis Tools

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## 1. History and Background

Accident Location and Analysis System (ALAS)

Versions: Mainframe—PC (DOS) – Microsoft Access—GIS

Approximately 70,000 crashes reported annually—(all public roads, all crashes with personal injury or property damage of \$1,000 plus)

All crashes reported to Iowa DOT are located (link-node system just recently changed to a coordinate system)

Ten years of crash data are maintained; updates have been in yearly increments. Not all tools distributed with the full 10 years.

## 2. Analysis Tools User Program

**Access ALAS** distributed free with training provided. Has run-time version with a variety of standard report options. 305 users at present.  
(for use with DOT-supplied statewide annual crash file)

**Intersection Magic** distributed free under statewide license agreement with vendor. 100 users at present.  
(for use with DOT-supplied statewide annual crash file)

**GIS-ALAS** distributed at no cost but requires ArcView license. Currently not in distribution pending completion of next version with enhancements for TraCS users. 30 agencies used first version.  
(will be for use with EITHER TraCS crash data or with DOT-supplied annual crash file)

To this analysis tool kit will be added **CARE**, a powerful analysis package developed originally for the state of Alabama and now implemented in several states. CARE will add ease to performing statewide crash analyses and statistical work while having an Internet version for local safety programs.

The **Iowa Traffic Safety Data Service** will assist TraCS users with crash data analysis, especially if they do not have an ArcView license or someone trained in its use.

### **3. Current Transitions and Challenges**

- Finish migrating all analysis tools from link-node to coordinate system
- Revise all analysis tools to accommodate the new crash report form
- Provide local agencies with analysis options using the TraCS database
- Strive for low-cost or free options for greatest statewide implementation
- Use the Internet and web sites for improved customer service
- Build on current GIS capabilities and applications (example: Emergency Response Information System, or ERIS)